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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/779,529

02/13/2004

Daniel V. Palanker

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EXAMINER

VRETTAKOS, PETER J

ART UNIT

PAPER NUMBER

3739

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/779,529

Applicant(s)

PALANKER ET AL.

Examiner

Peter J. Vrettakos

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 18-40 is/are pending in the application.
- 4a) Of the above claim(s) 28-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18-27 and 35-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

RCE filed 2-20-07.

Claims 1-14 and 18-40 are pending. Claims 28-34 are withdrawn.

Claims 1-14, 18-27 and 35-40 are rejected.

See the Response to Arguments section for the heart of this action.

Note: if the body of a rejection is silent toward a specific claim or claim language, the claims listed at the beginning of the rejection govern what claims rejected. In other words, if the claim is listed at the beginning of the rejection but not explicitly addressed in the body of the rejection, the claim is still rejected and presumed rejected implicitly elsewhere in the body of the rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 and 18-27 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heim et al. (6,533,781) in view of Malis et al. (4,590,934).

Heim discloses a voltage source (col. 9:17-19) *but does not disclose sufficiently to make obvious* a voltage source configured to apply a plurality of bursts of pulses separated by a burst interval as claimed by the Applicant.

Malis et al. however, does disclose a voltage source configured to apply a plurality of bursts of pulses separated by a burst interval as claimed by the Applicant and the source's output is seen in figure 18(f). Also see col. 10:38-44.

The rest of the parentheticals in the rejection refers to Heim.

Conductive blade (22), slidably mounted (disposable – col. 8:32-37), insulators (32,34), voltage source (col. 9:17-19) and tungsten or titanium (col. 7:40-43).

Re: claims 1-5, 8-10, 14-18, 20-21 and 35-39 see MPEP 2144.05, *infra*. The Office argues that the claimed dimensions (radius of curvature) and parameters (pulse duration) would have been determined through routine experimentation.

II: OPTIMIZATION OF RANGES

A. Optimization Within Prior Art Conditions or Through Routine Experimentation

"[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) see also *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382 ("The normal desire of scientists or artisans to improve upon what is already generally known provides the **motivation** to determine where in a disclosed set of percentage ranges is the optimum combination of percentages.").

The ranges referred in the prior art (Heim) are the implied (they exist even though they might not be expressly mentioned) ranges of radius of curvature and pulse duration.

Re: claims 11, 13, 19, 22-26, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the

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prior art structure is capable (addressed above) of performing the intended use, then it meets the claim.

Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to modify/optimize Heim in view of Malis et al. through routine experimentation. The motivation is that referred in MPEP 2144.05 IIA. listed above. Further, the motivation to use Malis et al.'s voltage source is to provide more control over energy pattern deposition as disclosed in Malis et al. col. 1:5-42.

Response to Arguments

Applicant's arguments filed 1-16-07 have been fully considered but they are not persuasive. The Applicants arguments are toward the lack of obviousness of the claimed parameters found in the prior art as evidenced by non-overlapping ranges, unexpected results and undue experimentation. Unfortunately, these arguments do not sufficiently address the dispositive issue as to whether the prior art is "capable" of the claimed parameters. (The "capable" standard is applied toward apparatus claims. Were the claims toward a method, they would be in condition for allowance.) As the question of the prior art's capability to perform at the claimed parameters (regardless of the obviousness of the claimed parameters) has not been tangibly disproven through a difference in structure between the claims and the prior art, the rejections are maintained.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Vrettakos whose telephone number is 571-272-4775. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pete Vrettakos
March 2, 2007




ROY D. GIBSON
PRIMARY EXAMINER